

Comments on NJDEP White Paper: SCS004B - Flares in a Petroleum Refinery

Control Measure Summary (from NJDEP White Paper)	Emissions (tons/year) in NJ (from NJDEP White Paper)		Comments on NJDEP White Paper
2002 existing measure: NSPS Subpart J	VOC in 2002	515	NJDEP should reference the source(s) for the emission data so that comments can be provided. As presented, there is insufficient background information to assess the accuracy of the emission estimates.
	SO2 in 2002	332	
	NOx in 2002	135	
Candidate Measure 1: Flare Gas Recovery System Emission Reductions: VOC and HAPs as well as NOx & SOx. Percent emission reductions depend upon percent of flare gas recovered. Control Cost: Capital cost of FGR system is \$1.0 to \$5.0 million. Operation & Maintenance Cost: \$100,000 to \$400, 000 per year. Timing of Implementation: By end of 2009. Implementation Area: OTC	VOC 2002 Base: 515 Reduction: - 186 2009 329 Remaining:		NJDEP provides insufficient information to evaluate the accuracy of the documented VOC, NOx, and SOx reductions. NJDEP should provide the basis for the reductions so that detailed comments can be provided. NJDEP has grossly underestimated the cost of installing and operating FGR systems. The capital cost of installing a FGR system at one of our facilities is over \$24 MM. The operating cost is expected to be between \$0.5 to \$1 MM/year.
	NOx 2002 Base: 135 Reduction: - 48 2009 87 Remaining:		
	SO2 2002 Base: 332 Reduction: -105 2009 227 Remaining:		
Policy Recommendation of State/Workgroup Lead: Flare Gas Recovery (FGR) system is recommended to achieve reduction in VOC emissions and HAP emissions, as well as NOx & SOx emissions. Brief Rationale for Recommended Strategy: Beside major reduction in emissions, the FGR system allows cost savings because the recovered gases can be used as fuel or process feedstock. Cost savings due to recovery can be \$300,000 per year to \$1,000,000 per year; consequently, the annual cost can be low and the capital cost can be recovered in 3 to 7 years depending upon the facility and FGR system. The State of California has developed a specific rule for FGR system.			NJDEP does present any support documentation to justify the indicated cost savings. Even though there are potential savings in fuel cost, these are insignificant when compare with the capital and operating cost required by a FRC system. In addition, as a result of enforcement actions by States and USEPA, Section 114 consent agreements and by the facilities own initiatives, flaring events have been drastically reduced during the past few years.